

HURRICANES AND RECREATIONAL FISHERIES

Methods

Hurricanes have been closely observed over the past century, though recreational fishing statistics for North Carolina have only been monitored since 1981. This 24-year period (1981–2004) was examined to determine if differences in recreational fishing effort and harvest may exist among years with and without notable hurricanes. The timeline examined for each species ranged from 1989 to 2004 because sample sizes were increased dramatically in North Carolina in 1989 allowing for more reliable estimates at the species level.

Data source³

The Marine Recreational Fishery Statistics Survey (MRFSS) was established in 1981 by the National Marine Fisheries Service (NMFS). The program is designed to obtain standardized and comparable estimates of participation, effort, and catch by recreational anglers to identify the impact of recreational fishing on marine resources. MRFSS data are currently used to aid management of numerous species, and the North Carolina Division of Marine Fisheries (NCDMF) receives roughly 400 data requests for information on recreational fishing activity annually (NCDMF2005b).

MRFSS data are collected through two complementary surveys: a telephone survey of households in coastal counties, and an intercept (i.e., interview) survey of anglers at fishing access sites. Estimates of fishing effort, catch, and participation are produced from the results of the two independent surveys. These estimates are calculated for six two-month periods (waves) in each year. Resulting data fall into three categories: 1) number of fishing trips taken (fishing effort); 2) number of finfish caught and harvested or released (number and weight); and, 3) number of participants in recreational fishing activities. Fishing effort is defined as “the estimated number of fishing trips taken by individual anglers” (NMFS, Fisheries Statistics Division, personal communication). Estimates of trips are produced for each state, fishing mode, and bimonthly wave. Catch estimates for each finfish species are produced for each subregion,

³ Much of the following is derived from NOAA Fisheries, by John F. Witzig and M. Osborn. Full text and additional information can be found at: <http://www.st.nmfs.gov/st1/recreational/overview/overview.html>